

REMARKS

The Office Action mailed February 9, 2005 has been carefully reviewed along with the references cited therein. In the Office Action, the Examiner rejected claim 6 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner also rejected claims 7, 20, 22-24 and 26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,551,200 (Golden) in view of U.S. Patent No. 5,447,311 (Viollaz). The Examiner also rejected claims 6, 10 and 20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Design Patent No. D244,558 (Elkins) in view of Viollaz. Claims 9, 21 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Golden in view of Viollaz as applied to claims 7, 20, 22-24 and 26 and further in view of U.S. Patent No. 4,438,931 (Motomiya).

Applicant's representative and the Examiner conducted a telephonic interview on May 11, 2005. Applicant appreciates the courtesy extended by the Examiner in conducting the interview. In the interview the § 103(a) rejections were discussed. The Examiner indicated that the triangular section formed in the toe of Elkins could indicate that a cavity might be disposed in the muscle back portion. The combination of Golden and Viollaz was also discussed, with specific reference to FIGURE 8A of Golden. No agreement was reached.

In this response, Applicant has amended claim 6 to overcome the § 112, second paragraph rejection. Applicant has also amended claims 20 and 22. Claims 24 and 25 have been cancelled.

Claim 20 has been amended to recite that the muscle back surface has no visible cavity thereon. This amendment defines the claim over Golden in view of Viollaz. The Examiner indicated in the subject Office Action that Golden discloses a muscle back surface. Golden discloses a club head having a thin upper portion 12 in combination with a thicker lower portion 14 having recesses 16t and 16h positioned to opposite sides of a central region. Col. 3, lines 57-58. According to Golden, the "recesses 16t and 16h as described herein provide significantly improved flexibility in the club head's toe and heel regions by their specific location and size at the rear of the club head 10." Col. 4, lines 35-38. Therefore, Golden expressly teaches away from any modification of the golf club head where the muscle back surface has no visible cavity thereon. Furthermore, any modification to Golden to remove the recesses in the muscle back portion would destroy the intended function of Golden, which is to provide improved flexibility.

In rejecting claim 20, the Examiner combined Elkins and Viollaz. Elkins is a design patent for a muscle back iron. In Elkins, a triangle is formed in the toe section. The Examiner indicated in the interview that this triangle may indicate that a cavity can be formed in the muscle back portion. As seen in FIGURE 1, the toe section includes shading lines that cross over the triangle. This indicates that the inside of the triangle is made from the same material as the outside of the triangle. A design patent only protects the visual aesthetic features of the club head; therefore, any inference drawn that the club head may include a cavity is drawing tenuous conclusion.

In the subject Office Action, the Examiner indicates that in view of Viollaz, which discloses a hollow iron filled with foamed polyurethane, it would have been obvious to modify the head of Elkins to have a cavity filled with foamed polyurethane to provide vibration dampening. Using this logic, the Examiner can combine any muscle back iron with any club head that includes a cavity that is filled with something. The Examiner is reminded that the mere fact that references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. Since Elkins fails to disclose a cavity, one can only assume that Elkins is directed to a muscle back iron. As explained in Applicant's BACKGROUND OF THE INVENTION section, a muscle back iron provides no corrective bias on a ball that is struck. By providing a cavity in Elkins, the principle of operation of the Elkins club head, i.e. a club head that provides no corrective bias so that a ball can be more easily "worked," is modified. Such a teaching is not sufficient to render the claim prima facie obvious.

In the telephonic interview, the Examiner indicated that Applicant may also want to argue patentability of the claims over Elkins in view of Yamada. For the reasons stated above with reference to the combination of Elkins and Viollaz, specifically that any modification of Elkins to include a cavity would change the principle of operation of Elkins, also applies to Viollaz. Accordingly, it is submitted that claim 20, and those depending from it patentably define over the cited references.

Claim 22 has been amended to recite "an insert comprising a high-rebound material disposed in the cavity," which is similar to claim 25. Claim 25 was rejected as being unpatentable over Golden in view of Viollaz as applied to claims 7, 20, 22-24 and 26 and further in view of Motomiya. In the BACKGROUND OF THE

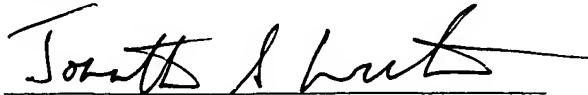
INVENTION, Golden discusses that "a thinner club face at the center portion ... may not impart the desired initial velocity or spin rate to the golf ball." Golden overcomes this by providing a stiff region in the center of the club head. Golden teaches a stiffness zone S located in a section of the central region of the club head, as seen in FIGURE 5. Col. 4, lines 52-53. This stiffness zone is discussed in detail in column 5. Golden teaches that stiffness is a function of the bending stiffness of a beam-like cross section. Golden teaches that "remainder of the lower portion 14 of the club head should include a thickness increase of at least 15%, as compared to the top thickness T_{top} , which corresponds to a stiffness increase of more than 50%. Preferably, the thickness increases at least 25%, which corresponds to a stiffness increase of more than 95%." Col. 5, lines 58-63.

When discussing FIGURE 8A, Golden et al. teaches that a cavity can be formed in the shell, but "[a]ny suitable material providing the appropriate stiffness in conjunction with the outer shell may be used within the central region." Col. 6, lines 48-50. As opposed to providing a stiff region to the center of the club head as taught by Golden, Applicant includes a high-rebound material. The high rebound material does not increase the stiffness of the central region of the golf club head. To the contrary, a high-rebound material provides a less stiff area that can impart a trampoline effect on the ball. Any modification to Golden to include a high rebound insert in the cavity would destroy the intended function of Golden, which is to provide a stiffer material at the center of the club head. Accordingly, claim 22 and those depending from it patentably define over the cited references.

In view of the above, it is submitted that the pending claims patentably define over the cited references. Accordingly, the application is in condition for allowance. An early notice to that affect is earnestly solicited.

Respectfully submitted,

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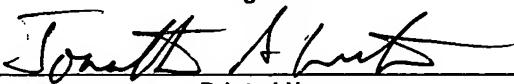
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